

STEREO INTEGRATED AMPLIFIER

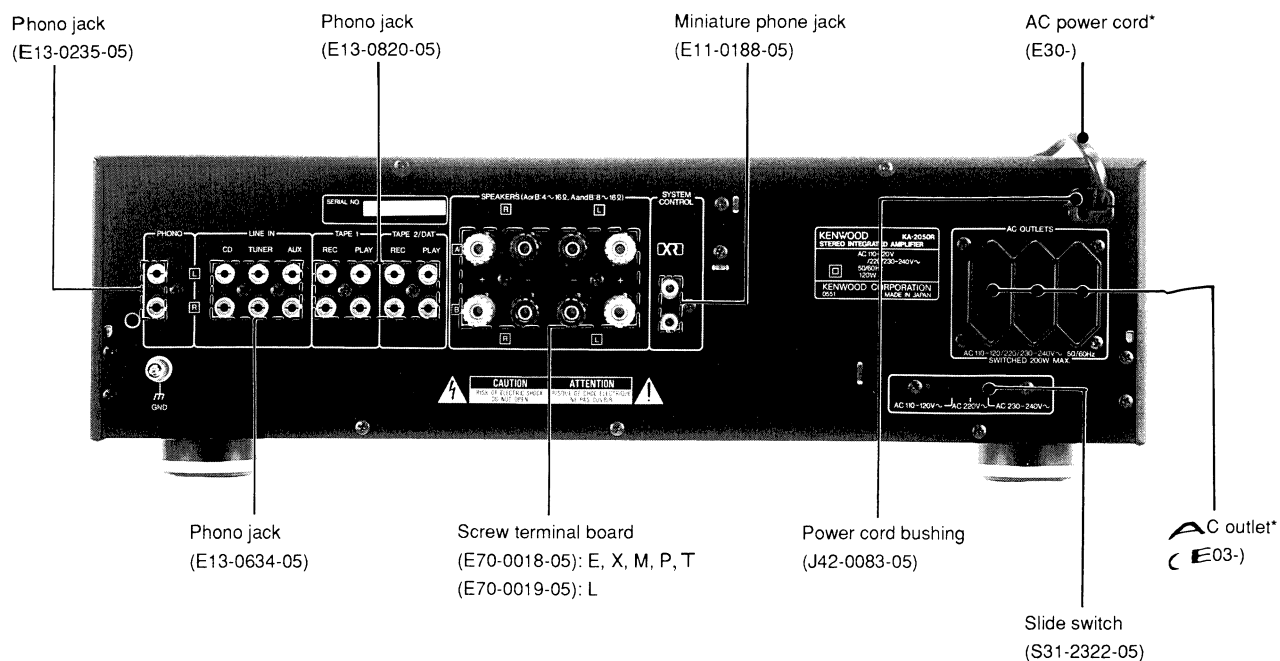
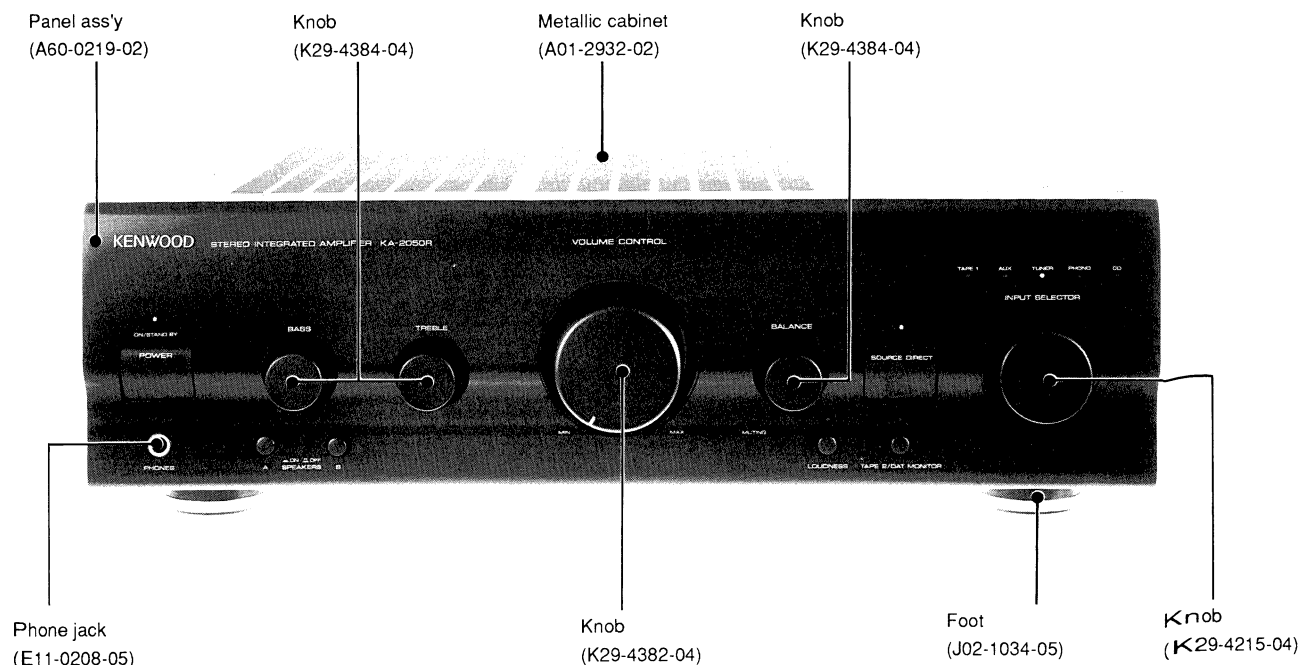
KA-2050R/3050R

SERVICE MANUAL

KENWOOD

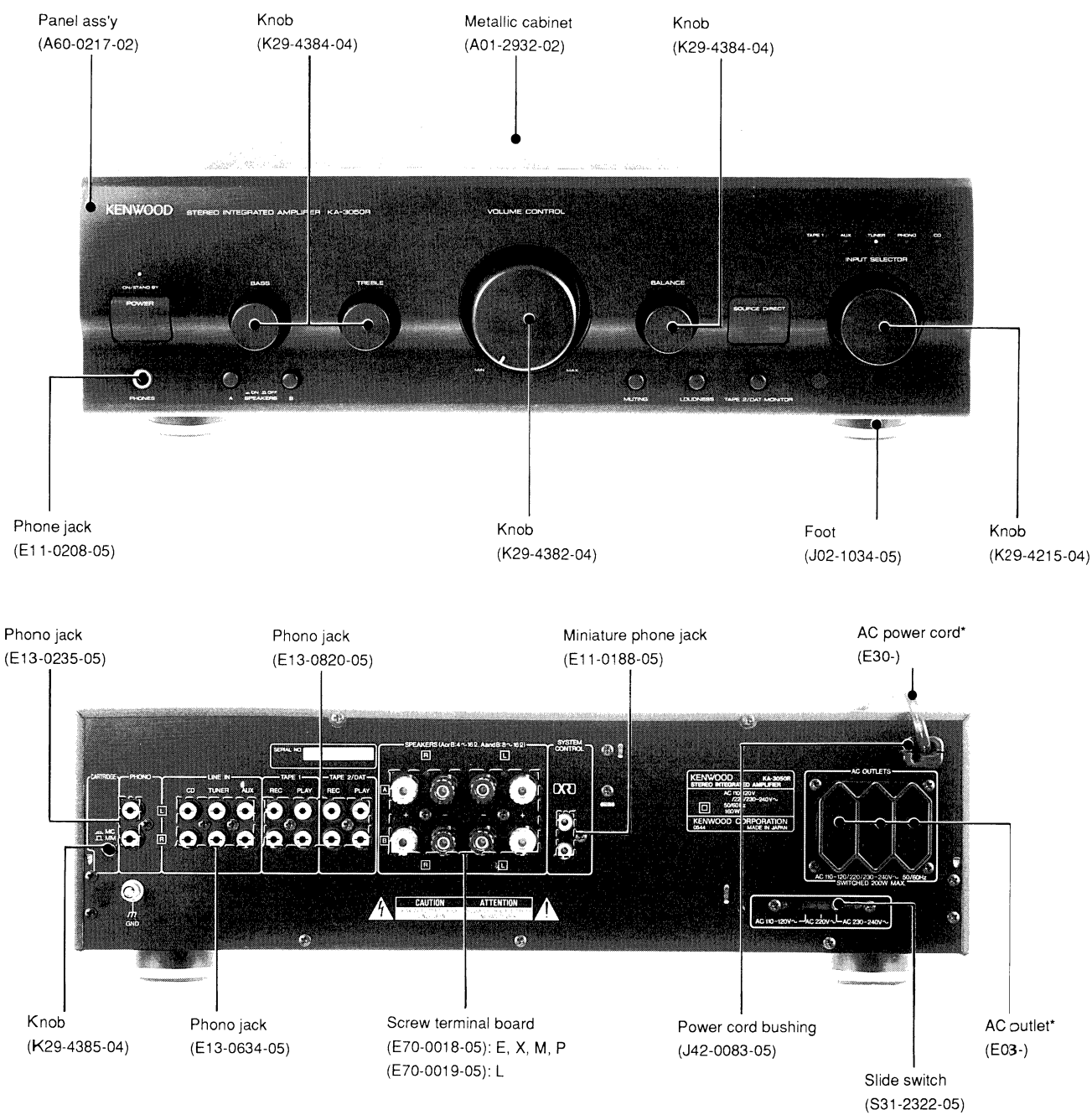
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B51-4546-00 (S) 2349

(KA-2050R)



* Refer to parts list on page 17.

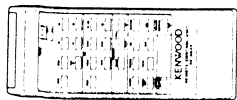
KA-2050R/3050R



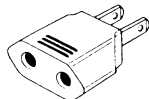
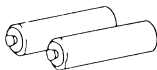
* Refer to parts list on page 17.

Accessories

- Remote control unit 1
- Batteries (R03/UM-4/ "AAA") 2
- AC plug adaptor 1 (Except for some areas) For the unit with a European AC plug in areas other than Europe.



(A70-0597-05)
(A09-0094-08) : Battery cover



(E03-0115-05)

ADJUSTMENT/REGLAGES/ABGLEICH

ADJUSTMENT

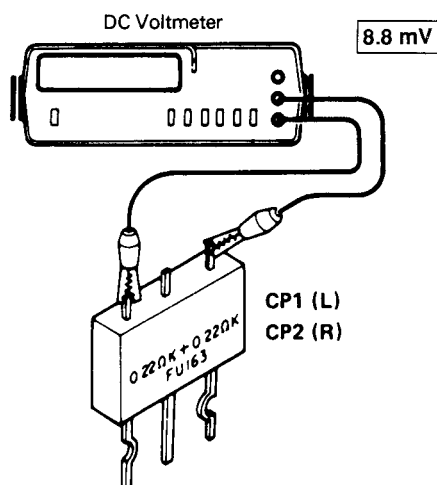
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, set the respective switches as follows: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	IDLE CURRENT	—	Connect a DC voltmeter across CP1 (L) CP2 (R) (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	8.8 mV	(a)

REGLAGES

N	ITEM	REGLAGE DE L' ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L' AMPLIFICATEUR	POINTS DE L' ALIGNMENT	ALIGNER POUR	FIG.
Sauf indication contraire, régler comme suit les commandes respectives: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	COURANT DE POLARISATION	—	Connecter un voltmètre de CC SUR CP1 (G) CP2 (D) (X09-)	VOLUME: 0	VR1 (G) VR2 (D) (X09-)	8.8 mV	(a)

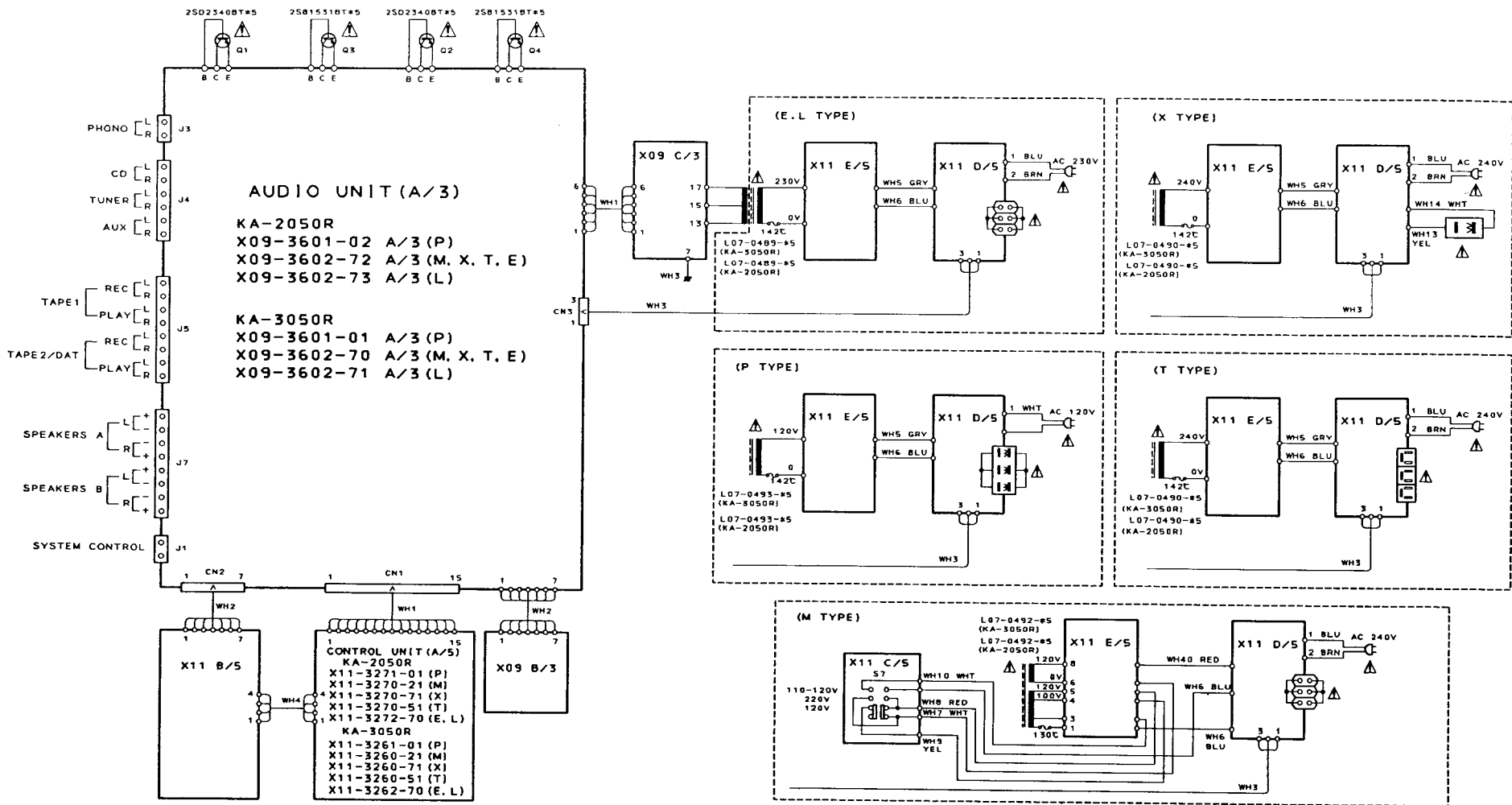
ABGLEICH

NR.	GENGENSTAND	EINGANGS- EINSTELLUNG	AUSANG- EINSTELLUNG	VORSTÄRKER- EINSTELLUNG	ABGLEICHE- PUNKTE	ABGLEICHEN FÜR	ABB.
Wenn nicht anders angegeben, die einzelnen Schalter wie folgt einstellen: POWER: ON SPEAKER: B REC OUT: OFF SELECTOR: PHONO							
1	LEERLAUFSTROM	—	Einen Gleichspannungs- messer über CP1 (L) CP2 (R) anschießen. (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	8.8 mV	(a)



(a)

WIRING DIAGRAM

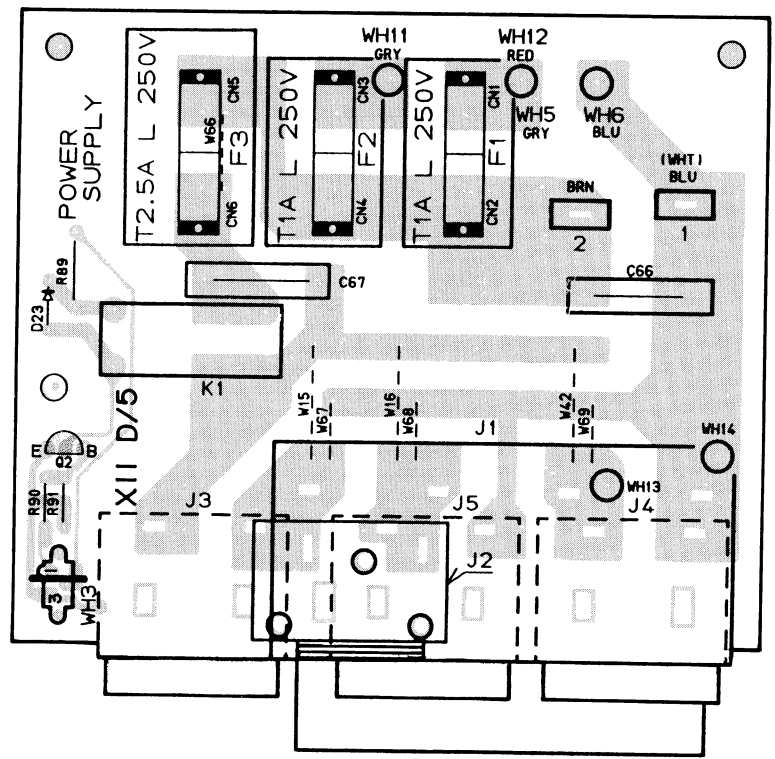
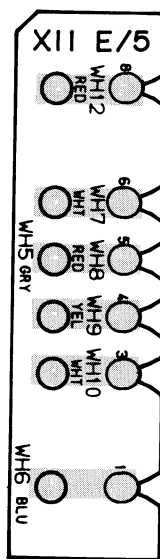
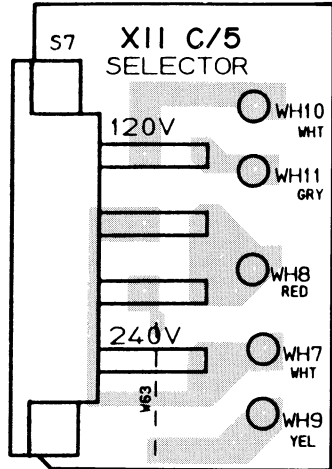


A B C D E F G H I J

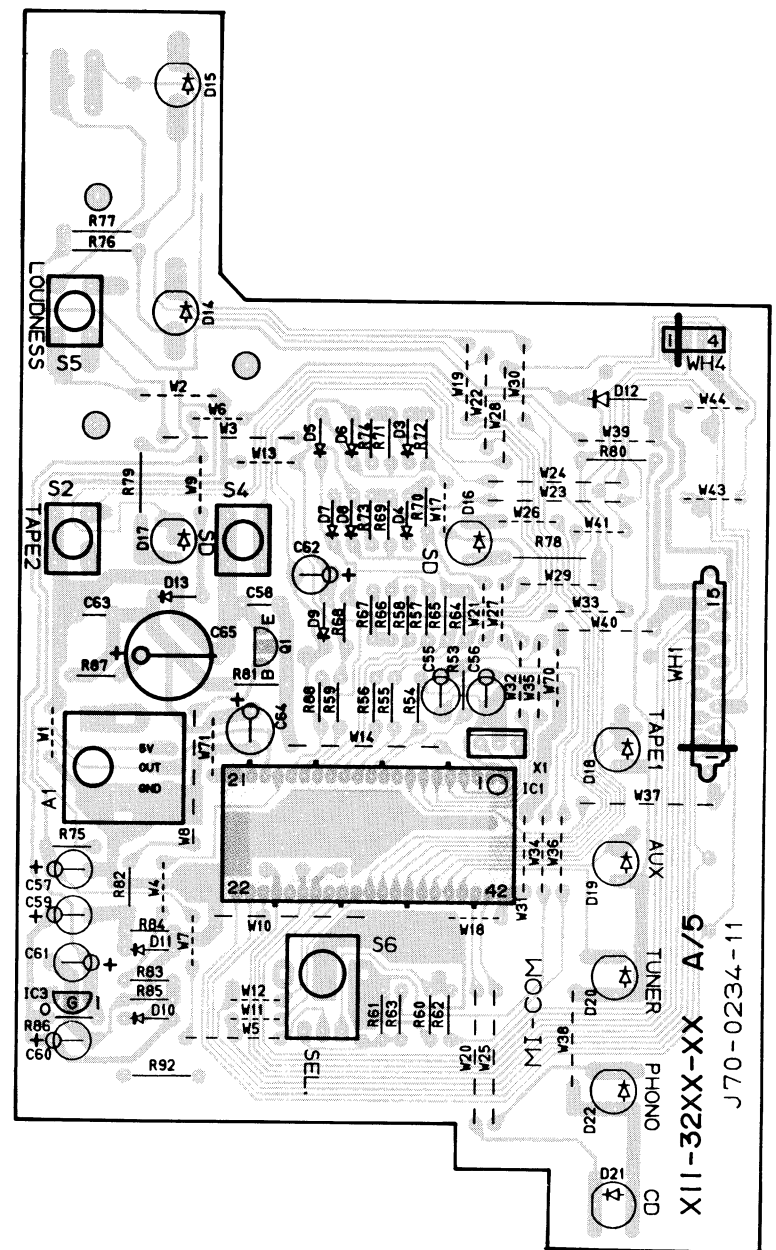
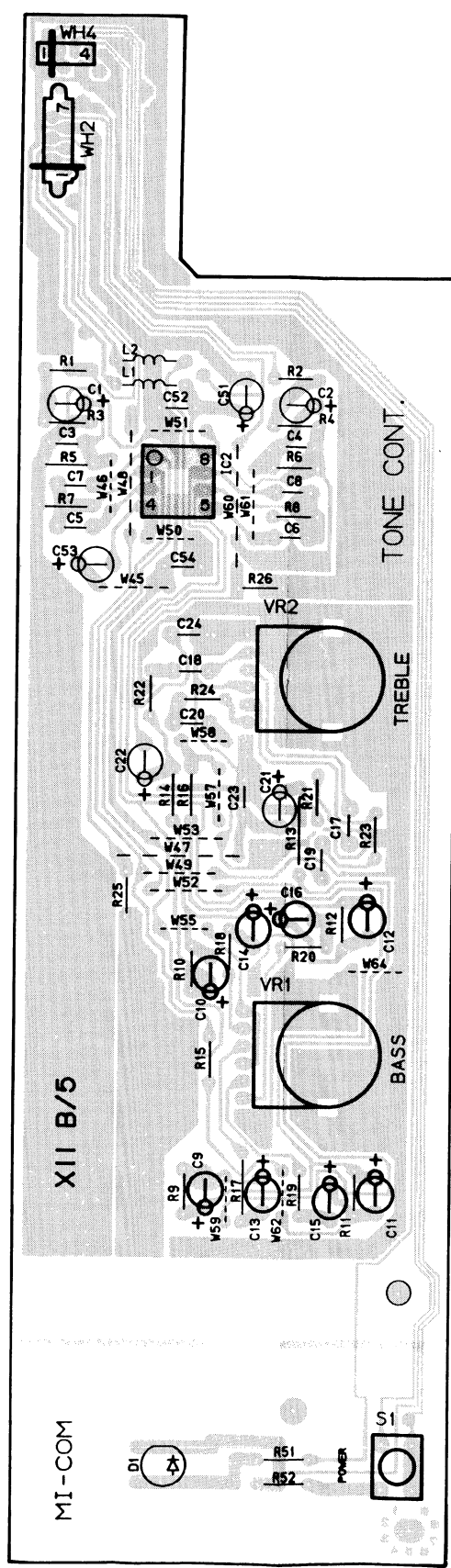


PC BOARD (Component side view)
CONTROL UNIT

AC230-240V~ AC220V~ AC110-120V~

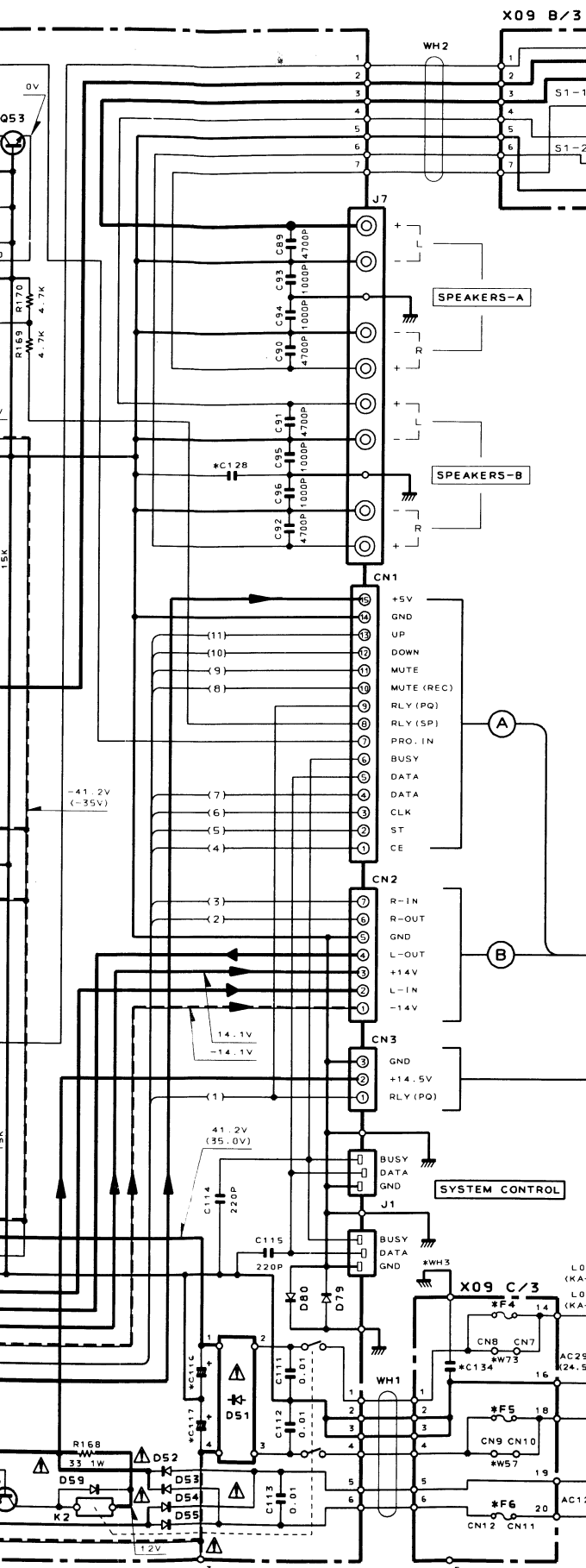


AC110-120/220/230-240V~ 50/60Hz
SWITCHED 200W MAX
AC OUTLETS



Refer to the schematic diagram for the values of resistors and capacitors.

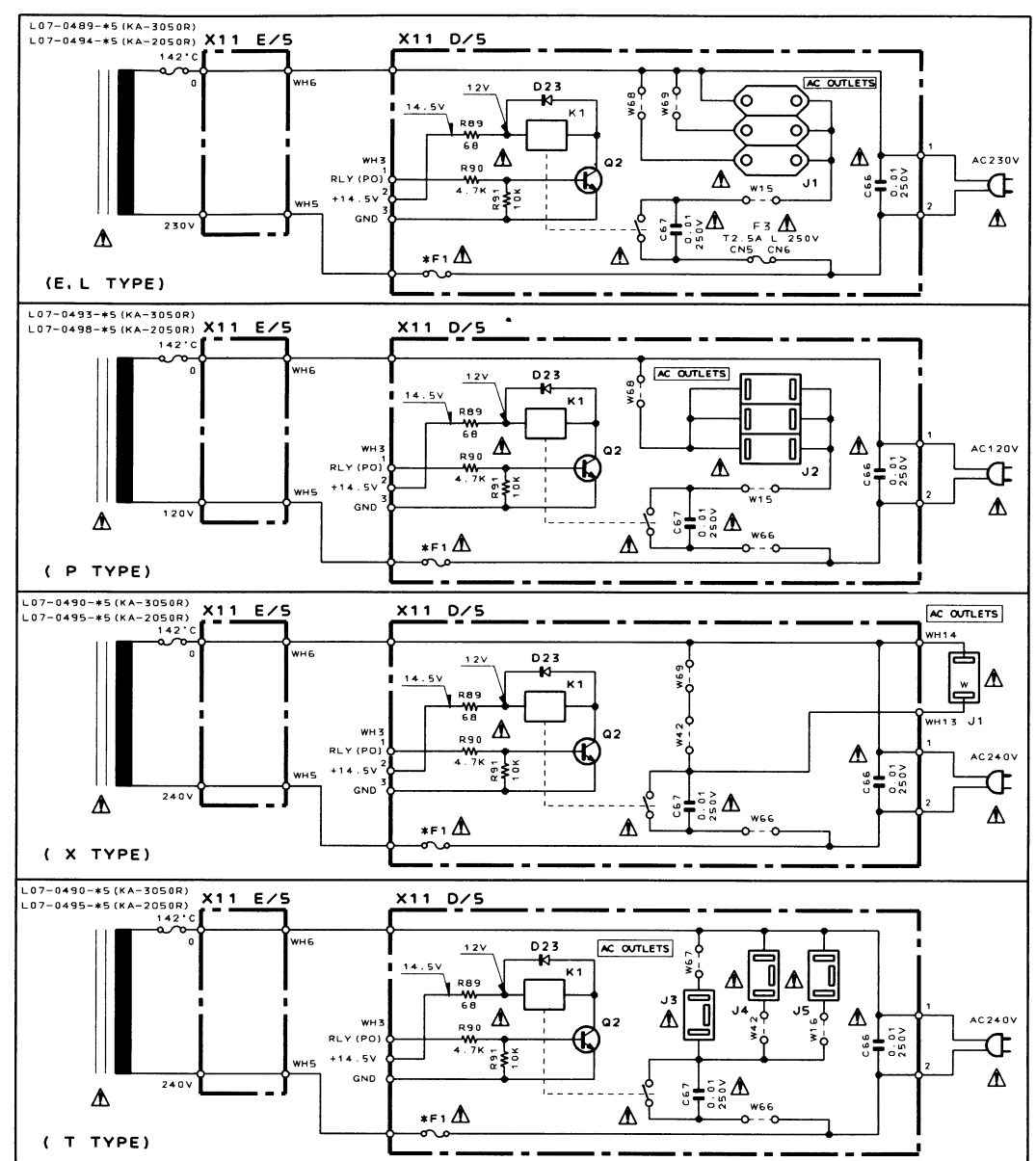
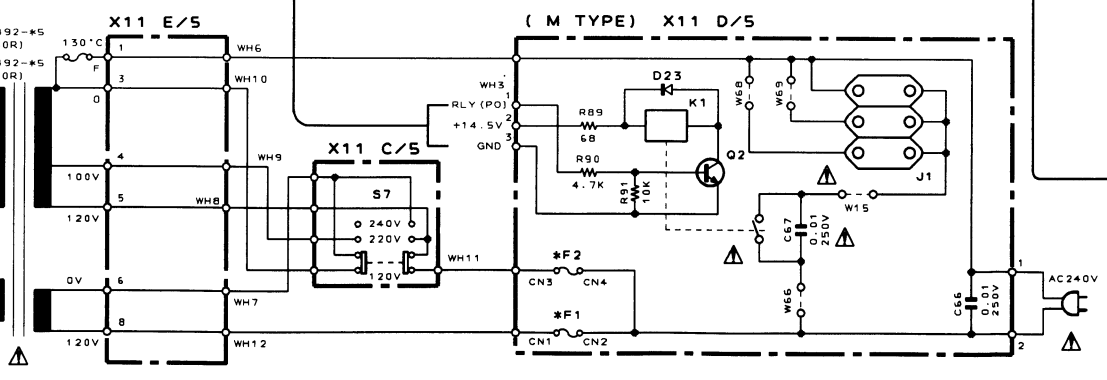




X09-360X-XX

COUNTRY	KA-3050R			KA-2050R		
	OTHER AREAS (M) AUSTRALIA (X) ENGLAND (T) EUROPE (E)	SCANDINAVIA (L)	CANADA (P)	OTHER AREAS (M) AUSTRALIA (X) ENGLAND (T) EUROPE (E)	SCANDINAVIA (L)	CANADA (P)
UNIT NAME	X09-3602-70	X09-3602-71	X09-3601-01	X09-3602-72	X09-3602-73	X09-3601-02
REF. NO	A1	A1	A1	A2	A2	A2
IC1	NJM4565D	NJM4565D	NJM4565D	NJM4580D-D	NJM4580D-D	NJM4580D-D
C116, 117	6800µ50	6800µ50	6800µ50	5600µ42	5600µ42	5600µ42
C128, 134	0.01	0.01	NO	0.01	0.01	NO
R127, 128	11K	11K	11K	9.1K	9.1K	9.1K
R167	820 1W	820 1W	820 1W	470 1W	470 1W	470 1W
R181	3.9K	3.9K	3.9K	3.3K	3.3K	3.3K
R193, 194	4.7K	4.7K	4.7K	3.9K	3.9K	3.9K
F4, 5	NO	NO	6A 125V	NO	NO	5A 125V
F6	T1A L 250V	T1A L 250V	1A 250V	T1A L 250V	T1A L 250V	1A 250V
W18, 45, 58 75~78 89, 90, 115	YES	YES	YES	NO	NO	NO
W57, 73	YES	YES	NO	YES	YES	NO
W85, 86 122, 125	NO	NO	NO	YES	YES	YES
W101	NO	NO	YES	NO	NO	YES
WH3	YES	YES	NO	YES	YES	NO

- X09-360X-XX
- IC1 : NJM4565D (3050R)
IC2 : NJM4580D-D (2050R)
IC3 : NJM4580D-D
IC4 : TC9163N
IC5 : TA8409S
IC6 : PC7805AHF or TA7805S
IC7 : NJM4565D-D
- Q1~4 : 2SK170 (BL.V)
Q5~10 : 2SC2878 (B)
Q11~14 : 2SC1845 (F.E)
19, 20 : LC7821N
Q15~18 : 2SA992 (F.E)
Q21, 22 : 2SC4137 (V.W)
Q23, 24 : 2SC2458 (Y.GR)
52, 53 : 2SC3311A (Q.R)
Q51 : 2SA1048 (Y.GR) or 2SA1309A (Q.R)
Q54, 55 : 2SC2003 (L.K)
Q56, 59 : UN4112 or DTA124ES
Q57, 58 : UN4212 or DTC124ES
Q60, 62, 63 : 2SD863 (E.F)
Q61 : 2SB764 (E.F)
- D1~30, 56 : 1SS133
57, 63~69, 77~84 or HSS104
D31, 32 : 1SS131
58, 59 or HSS104A
D51 : RBV-602LFA or D58BA20F03
D52~55 : 1SS688B
D60, 76 : RD5.1JS (B2)
D61, 62 : RD7.5JS (B)
70~74, 85 or HZS7.5S (B2)
D75 : RD20JS (B) or HZS20S (B)



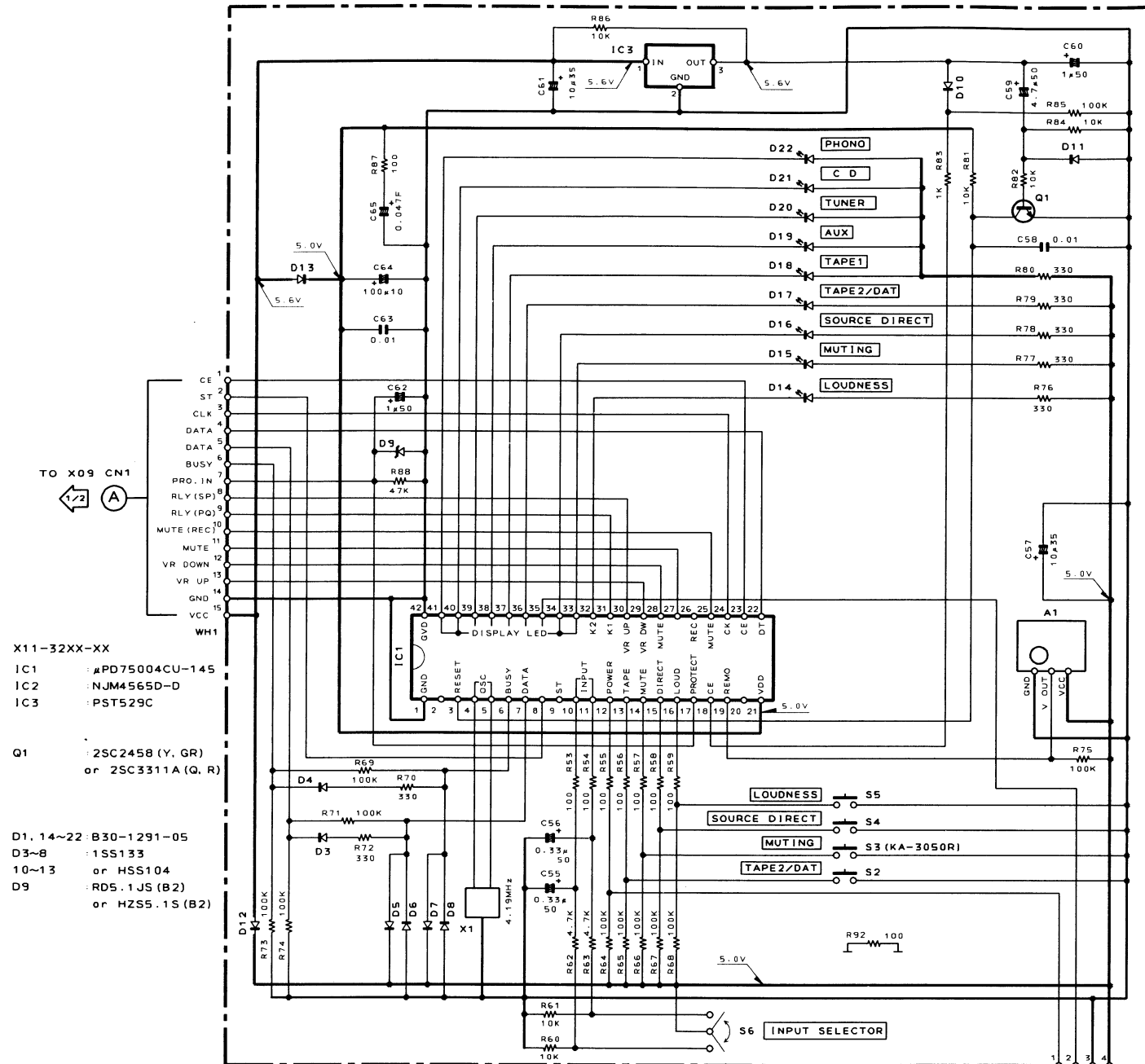
- X11-32XX-XX
- Q2 : 2SC2003 (L.K)
D23 : 1SS133 or HSS104

X11-32XX-XX

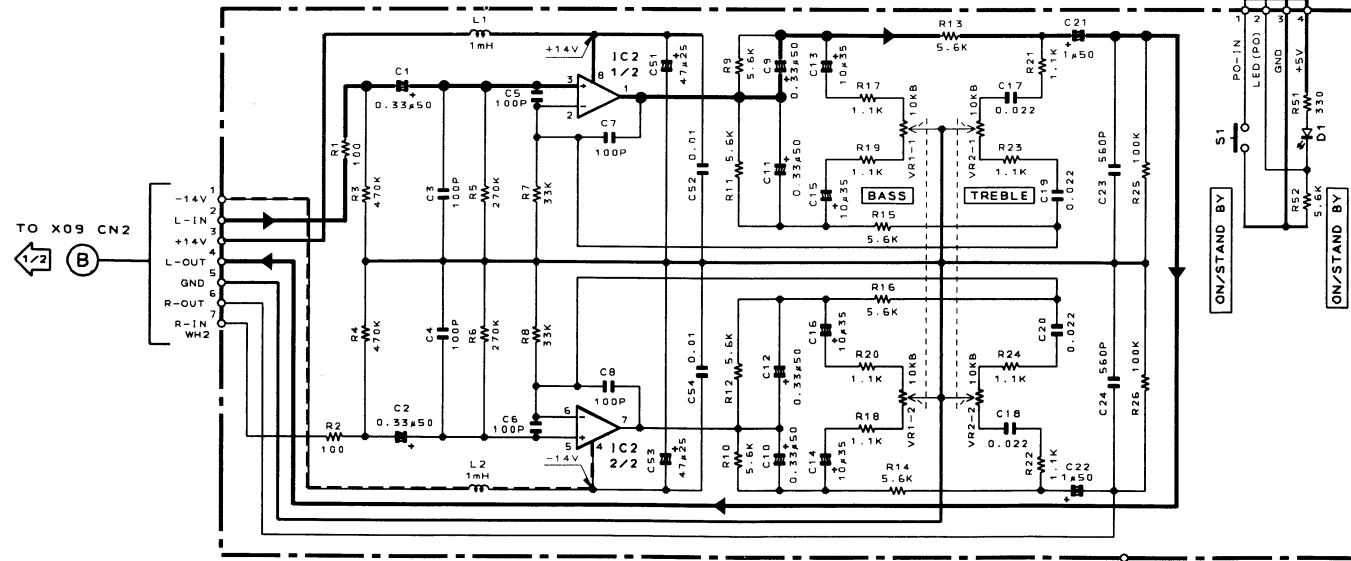
COUNTRY	ABB	KA-3050R			KA-2050R		
		UNIT NAME	REF. NO	F1	UNIT NAME	REF. NO	F1
CANADA	P	X11-3261-01	4A 125V	NO	X11-3271-01	2A 250V	NO
OTHER AREAS	M	X11-3260-21	T1.6A L 250V	T1.6A L 250V	X11-3270-21	T1A L 250V	T1A L 250V
AUSTRALIA	X	X11-3260-71	T1.6A L 250V	NO	X11-3270-71	T1A L 250V	NO
ENGLAND	T	X11-3260-51	T1.6A L 250V	NO	X11-3270-51	T1A L 250V	NO
EUROPE, SCANDINAVIA	E.L	X11-3262-70	T1.6A L 250V	NO	X11-3272-70	T1A L 250V	NO

SIGNAL LINE
GND LINE
+B LINE
-B LINE

X11-32XX-XX A/5

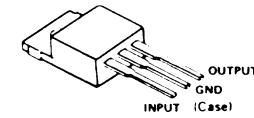


X11 B/5

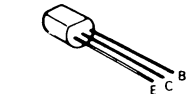


— SIGNAL LINE
 — GND LINE
 — +B LINE
 — -B LINE

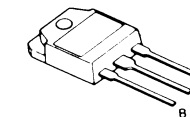
HSS104
 HSS104A
 HZS5.1S
 RD5.1JS
 S5688B
 1SS131
 1SS133



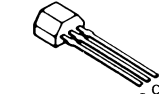
2SA992
 2SB764
 2SC1845
 2SC2003
 2SC2878
 2SD863



2SB1531BT*5
 2SD2340BT*5



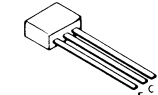
DTA124ES
 DTC124ES
 UN4112
 2SA1048
 2SC2458



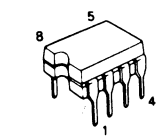
2SC4137



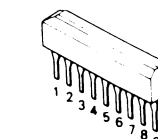
UN4212
 2SA1309A
 2SC3311A



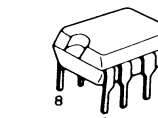
NJM4565D
 NJM4565D-D



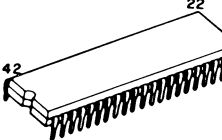
TA8409S



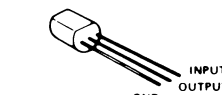
NJM4580D-D



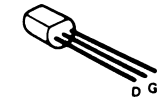
UPD75004CU-145



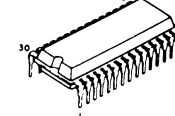
PST529C



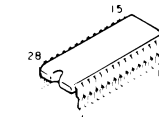
2SK170



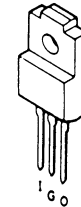
LC7821N



TC9163N



TA7805S



DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

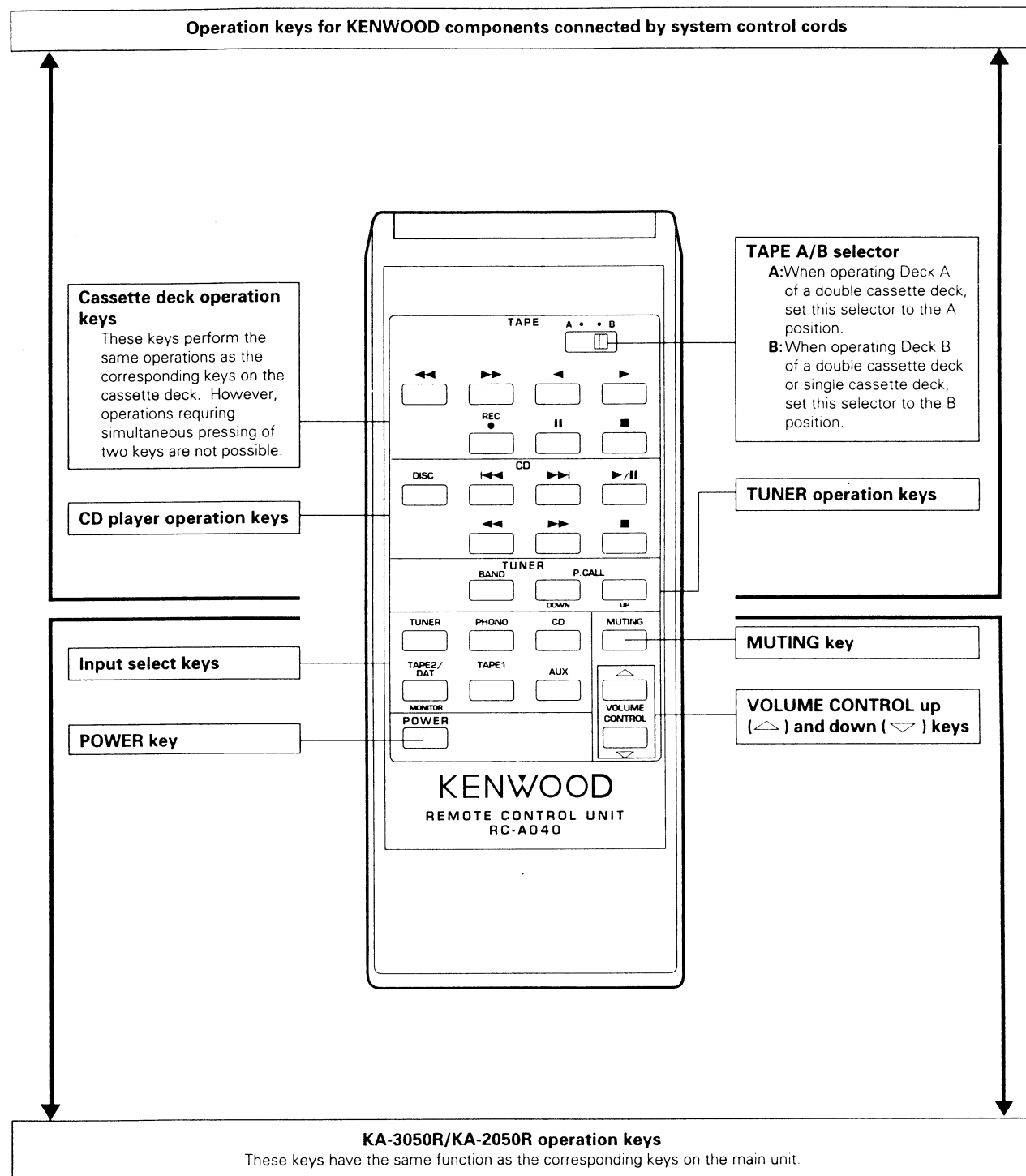
Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacture's recommended parts (refer to parts list). ⚡ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

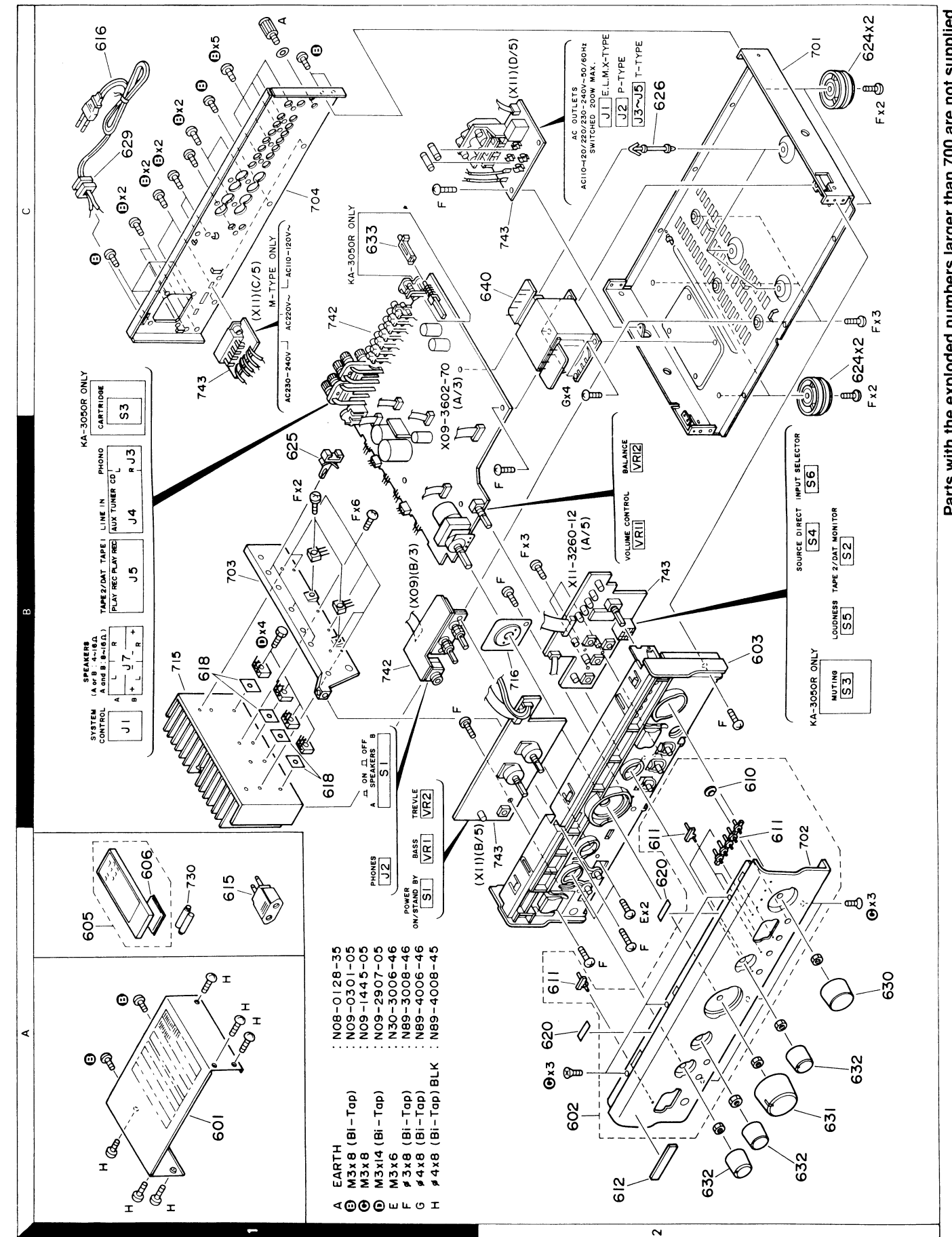
KA-2050R/3050R
 KENWOOD

Y08-4582-70

REMOTE CONTROL OPERATION



EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

voltmeter.
individual
e à haute
u fait des
e mesure

mit einem
chwanken
einzelnen

critical
s (refer to
reduce the
urements
ated from
customer.

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

No. 1

Ref. No.	Address	New	Parts No.	Description	Desti- nation	Re- marks
参照番号	位 置	新	部 品 番 号	部 品 名 / 規 格	仕 向	備考
KA-2050R						
601	1A	*	A01-2932-02	METALLIC CABINET		
602	2A	*	A60-0219-02	PANEL ASSY		
603	2B	*	A22-1558-01	SUB PANEL		
605	1A	*	A70-0597-05	REMOTE CONTROLLER ASSY		
606	1A	*	A09-0094-08	BATTERY COVER		
610	2B		B11-0237-14	COLOR FILTER		
611	2A	*	B12-0196-04	INDICATOR		
612	2A		B43-0287-04	KENWOOD BADGE		
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-13	WARRANTY CARD	P	
-			B46-0122-23	WARRANTY CARD	EL	
-			B46-0143-13	WARRANTY CARD	T	
-		*	B60-0835-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-0836-00	INSTRUCTION MANUAL (FRENCH)	ELP	
-		*	B60-0837-00	INSTRUCTION MANUAL (GE,DU,IT)	EL	
-		*	B60-0965-00	INSTRUCTION MANUAL (CHINESE)	M	
-		*	B60-0966-00	INSTRUCTION MANUAL (SPANISH)	ELM	
△ 615	1A		E03-0115-05	AC PLUG ADAPTER	M	
△ 616	1C		E30-0459-05	AC POWER CORD	ELM	
△ 616	1C		E30-0974-05	AC POWER CORD	P	
△ 616	1C		E30-1341-05	AC POWER CORD	X	
△ 616	1C		E30-1416-05	AC POWER CORD	T	
△ J1	2C		E03-0114-05	AC OUTLET	X	
620	2A		G11-0153-04	SOFT TAPE (80X12X3)		
-		*	H50-0321-04	ITEM CARTON CASE		
-		*	H10-5296-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-5297-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0225-04	PROTECTION BAG (850X450X0.03)	ELXMP	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	ELXMP	
-			H25-0651-04	PROTECTION BAG (0232 PRINTED)	T	
-			H25-0654-04	PROTECTION BAG (0225 PRINTED)	T	
624	2C		J02-1034-05	FOOT		
625	1B		J61-0033-05	WIRE BAND		
626	1C		J19-3331-05	UNIT HOLDER		
△ 629	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
630	2A		K29-4215-04	KNOB INPUT SELECTOR		
631	2A	*	K29-4382-04	KNOB VOLUME CONTROL		
632	2A	*	K29-4384-04	KNOB BASS, TREBLE, BALANCE		
△ 640	2C	*	L07-0494-05	POWER TRANSFORMER	EL	
△ 640	2C	*	L07-0495-05	POWER TRANSFORMER	TX	
△ 640	2C	*	L07-0497-05	POWER TRANSFORMER	M	
△ 640	2C	*	L07-0498-05	POWER TRANSFORMER	P	
A	1C		N08-0128-35	BINDING POST (EARTH)		
B	1A, 1C		N09-0301-05	TAPTITE SCREW (3X8)		
C	2A		N09-1445-05	SET SCREW (M3X8)		
D	1B	*	N09-2907-05	SEMS (TAPTITE SCREW)(3X14)		
E	2A		N30-3006-46	PAN HEAD MACHINE SCREW		
F	1A, 1B		N89-3008-46	BINDING HEAD TAPTITE SCREW		
G	2C		N89-4006-46	BINDING HEAD TAPTITE SCREW		

L:Scandinavia

K:USA

P:Canada

3 : KA-3050R

Y:PX(Far East, Hawaii)

T:England

E:Europe

2 : KA-2050R

Y:AAFES(Europe)

X:Australia

M:Other Areas

△ indicates safety critical components.

AUDIO UNIT

X09-3601-01	KA-3050R P
X09-3601-02	KA-2050R P
X09-3602-70	KA-3050R M, X, T, E
X09-3602-71	KA-3050R L
X09-3602-72	KA-2050R M, X, T, E
X09-3602-73	KA-2050R L

CONTROL UNIT

X11-3260-21	KA-3050R M
X11-3260-51	KA-3050R T
X11-3260-71	KA-3050R X
X11-3261-01	KA-3050R P
X11-3262-70	KA-3050R E, L
X11-3270-21	KA-2050R M
X11-3270-51	KA-2050R T
X11-3270-71	KA-2050R X
X11-3271-01	KA-2050R P
X11-3272-70	KA-2050R E, L

PARTS LIST

KA-2050R/3050R

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

No. 2

Ref. No. 参照番号	Address 位置	New Parts	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
H	1A		N89-4008-45	BINDING HEAD TAPTITE SCREW		
Q1 ,2		*	2SB1531BT*5	TRANSISTOR		
Q3 ,4		*	2SD2340BT*5	TRANSISTOR		
KA-3050R						
601	1A	*	A01-2932-02	METALLIC CABINET		
602	2A	*	A60-0217-02	PANEL ASSY		
603	2B	*	A22-1558-01	SUB PANEL		
605	1A	*	A70-0597-05	REMOTE CONTROLLER ASSY		
606	1A		A09-0094-08	BATTERY COVER		
610	2B		B11-0237-14	COLOR FILTER		
611	2A	*	B12-0196-04	INDICATOR		
612	2A		B43-0287-04	KENWOOD BADGE		
-			B46-0096-33	WARRANTY CARD		
-			B46-0121-13	WARRANTY CARD		
-			B46-0122-23	WARRANTY CARD		
-			B46-0143-13	WARRANTY CARD		
-		*	B60-0835-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-0836-00	INSTRUCTION MANUAL (FRENCH)		
-		*	B60-0837-00	INSTRUCTION MANUAL (GE,DU,IT)		
-		*	B60-0965-00	INSTRUCTION MANUAL (CHINESE)		
-		*	B60-0966-00	INSTRUCTION MANUAL (SPANISH)		
615	1A		E03-0115-05	AC PLUG ADAPTER		
616	1C		E30-0459-05	AC POWER CORD		
616	1C		E30-0974-05	AC POWER CORD		
616	1C		E30-1341-05	AC POWER CORD		
616	1C		E30-1416-05	AC POWER CORD		
J1	2C		E03-0114-05	AC OUTLET		
618	1B		F20-1322-05	INSULATING BOARD		
620	2A		G11-0153-04	SOFT TAPE (80X12X3)		
-		*	H50-0320-04	ITEM CARTON CASE		
-		*	H10-5296-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-5297-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0225-04	PROTECTION BAG (850X450X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
-			H25-0651-04	PROTECTION BAG (0232 PRINTED)		
-			H25-0654-04	PROTECTION BAG (0225 PRINTED)		
624	2C		J02-1034-05	FOOT		
625	1B		J61-0033-05	WIRE BAND		
626	1C		J19-3331-05	UNIT HOLDER		
629	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
630	2A		K29-4215-04	KNOB INPUT SELECTOR		
631	2A	*	K29-4382-04	KNOB VOLUME CONTROL		
632	2A	*	K29-4384-04	KNOB BASS, TREBLE, BALANCE		
633	1C	*	K29-4385-04	KNOB MM/MC		
640	2C	*	L07-0489-05	POWER TRANSFORMER		
640	2C	*	L07-0490-05	POWER TRANSFORMER		
640	2C	*	L07-0492-05	POWER TRANSFORMER		
640	2C	*	L07-0493-05	POWER TRANSFORMER		
A	1C		N08-0128-35	BINDING POST (EARTH)		

L:Scandinavia

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M:Other Areas

⚠ indicates safety critical components.

* New Parts

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No. 3

Ref. No. 参照番号	Address 位置	New Parts	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
B	1A, 1C		N09-0301-05	TAPTITE SCREW (3X8)		
C	2A		N09-1445-05	SET SCREW (M3X8)		
D	1B	*	N09-2907-05	SEMS (TAPTITE SCREW) (3X14)		
E	2A		N30-3006-46	PAN HEAD MACHINE SCREW		
F	1A, 1B		N89-3008-46	BINDING HEAD TAPTITE SCREW		
G	2C		N89-4006-46	BINDING HEAD TAPTITE SCREW		
H	1A		N89-4008-45	BINDING HEAD TAPTITE SCREW		
Q1 ,2		*	2SB1531BT*5	TRANSISTOR		
Q3 ,4		*	2SD2340BT*5	TRANSISTOR		
AUDIO UNIT (X09-360X-XX)						
C1 ,2			CF92FV1H101K	MF 100PF	K	
C3 ,4			CF92FV1H471J	MF 470PF	J	
C5 ,6			CE04KW1V100M	ELECTRO 10UF	35WV	
C7 -10			CF92FV1H102J	MF 1000PF	J	
C7 -10			CF92FV1H122J	MF 1200PF	J	
C11 ,12			CC45FSL1H390J	CERAMIC 39PF	J	
C13 ,14			CF92FV1H182J	MF 1800PF	J	
C13 ,14			CF92FV1H332J	MF 3300PF	J	
C15 ,16			CE04KW1E101M	ELECTRO 100UF	25WV	
C15 ,16			C90-1951-05	ELECTRO 3300UF	6.3WV	
C17 ,18			CF92FV1H123J	MF 0.012UF	J	
C17 ,18			CF92FV1H393J	MF 0.039UF	J	
C19 ,20			CF92FV1H113J	MF 0.011UF	J	
C19 ,20			CF92FV1H332J	MF 3300PF	J	
C21 ,22			CE04KW1H220M	ELECTRO 22UF	50WV	
C23 ,24			CF92FV1H272J	MF 2700PF	J	
C23 ,24			CF92FV1H392J	MF 3900PF	J	
C25 -38			CF92FV1H151K	MF 150PF	K	
C39 ,40			CE04KW1V4R7M	ELECTRO 4.7UF	35WV	
C41 ,42		*	C90-1971-05	ELECTRO 10UF	50WV	
C43 ,44			CF92FV1H101K	MF 100PF	K	
C45 ,46			CF92FV1H331K	MF 330PF	K	
C47 ,48			CF92FV1H683J	MF 0.068UF	J	
C49 ,50		*	C90-1971-05	ELECTRO 10UF	50WV	
C51 ,52			CF92FV1H121K	MF 120PF	K	
C53 ,54			CF92FV1H221K	MF 220PF	K	
C59 ,60			CC45FSL2H390J	CERAMIC 39PF	J	
C61 ,62			CE04KW1H101M	ELECTRO 100UF	50WV	
C63 ,64			CF92FV1H103J	MF 0.010UF	J	
C65 ,66			CE04KW1V100M	ELECTRO 10UF	35WV	
C67 ,68			CC45FSL1H050C	CERAMIC 5.0PF	C	
C69 ,70		*	C90-1972-05	ELECTRO 100UF	6.3WV	
C71 -78			CE04KW1H010M	ELECTRO 1.0UF	50WV	
C79 ,80			CK45FB1H222K	CERAMIC 2200PF	K	
C81 -88			CF92FV1H104J	MF 0.10UF	J	
C89 -92			CF92FV1H472J	MF 4700PF	J	
C93 -98			CK45FB1H102K	CERAMIC 1000PF	K	
C99 ,100			CF92FV1H103J	MF 0.010UF	J	
C111-113			CK45FF1H103Z	CERAMIC 0.010UF	Z	
C114 ,115			CC45FSL1H221J	CERAMIC 220PF	J	
C116 ,117		*	C90-1963-15	ELECTRO 5600UF	42WV	
C116 ,117		*	C90-1968-15	ELECTRO 6800UF	50WV	
C118			CE04KW1E102M	ELECTRO 1000UF	25WV	
C119			CK45FF1H103Z	CERAMIC 0.010UF	Z	

L:Scandinavia

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⚠ indicates safety critical components.

※ New Parts

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No. 4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
C120 C121 C122 C123 C124			CF92FV1H104J CE04KW1V100M CE04KW1H010M CE04KW1A470M CK45FF1H223Z	MF 0.10UF J ELECTR0 10UF 35WV ELECTR0 1.0UF 50WV ELECTR0 47UF 10WV CERAMIC 0.022UF Z		
C125-127 C128 C129 C130 C131,132			CE04KW1V100M CK45FF1H103Z C90-1917-05 CE04KW1H010M CF92FV1H103J	ELECTR0 10UF 35WV CERAMIC 0.010UF Z ELECTR0 100UF 16WV ELECTR0 1.0UF 50WV MF 0.010UF J	ELTXM	
C133 C134 C135 C136,137 C138,139		*	CE04KW1H010M CK45FF1H103Z CF92FV1H103J C90-1971-05 CE04KW1E101M	ELECTR0 1.0UF 50WV CERAMIC 0.010UF Z MF 0.010UF J ELECTR0 10UF 50WV ELECTR0 100UF 25WV	ELTXM	
C140,141 C142,143 C144,145 C146,147 C148,149			CE04KW1C470M CE04KW1H101M CF92FV1H103J CC45FSL1H101J CE04KW1A101M	ELECTR0 47UF 16WV ELECTR0 100UF 50WV MF 0.010UF J CERAMIC 100PF J ELECTR0 100UF 10WV		
C150,151 C152,153 C154 C155,156 C157,158			CE04KW1V100M CE04KW1E221M CK45FF1H103Z CE04KW1V100M CE04KW1H010M	ELECTR0 10UF 35WV ELECTR0 220UF 25WV CERAMIC 0.010UF Z ELECTR0 10UF 35WV ELECTR0 1.0UF 50WV	ELTXM	3
C159 C160			CC45FSL1H221J CE04KW1H010M	CERAMIC 220PF J ELECTR0 1.0UF 50WV		
J1 J2 J3 J4 J5			E11-0188-05 E11-0208-05 E13-0235-05 E13-0634-05 E13-0820-05	MINIATURE PHONE JACK SYNCRO PHONE JACK PHONES PHONE JACK PHONE PHONE JACK CD/TUNER/AUX PHONE JACK TAPE/DAT MONITOR		
J7 J7		*	E70-0018-05 E70-0019-05	SCREW TERMINAL BOARD SPEAKRES SCREW TERMINAL BOARD SPEAKERS	ETXMP L	
△ F4 ,5 △ F4 ,5 △ F6 △ F6			F04-5022-05 F05-6029-05 F04-1026-05 F06-1022-05	FUSE (UL) (125V 5A UL) FUSE (UL) (125V 6A) FUSE (UL) (250V 1A) FUSE (SEMKO) (250V T1A)	P P P ELTXM	2 3
- CN7 -12 CN11,12			J11-0098-05 J13-0075-05 J13-0075-05	WIRE CLAMPER FUSE CLIP FUSE CLIP	P ELTXM	
L1 ,2 L3 ,4 L11 ,12 L15 ,16			L40-1011-47 L39-0085-05 L40-1011-17 L40-2211-17	SMALL FIXED INDUCTOR(100UH,K) PHASE COMPENSATION COIL SMALL FIXED INDUCTOR(100UH,K) SMALL FIXED INDUCTOR(220UH,K)		3
CP1 ,2 R23 ,24 R23 ,24 R25 ,26 R111,112			R90-0187-05 RN14BK2C2613FTS RN14BK2C8252FTS RN14BK2C6811FTS RD14AB2E472JTS	MULTI-COMP 0.22X2 K 5W RN 261K F 1/6W RN 82.5K F 1/6W RN 6.81K F 1/6W FL-PROOF RD 4.7K J 1/4W		2 3 3
R113-118 R119,120 R129-132			RD14AB2E680JTS RD14AB2E100JTS RD14AB2E101JTS	FL-PROOF RD 68 J 1/4W FL-PROOF RD 10 J 1/4W FL-PROOF RD 100 J 1/4W		

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△ indicates safety critical components

※ New Parts

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No. 5

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
R133,134 R135,136 R141-144 R145,146 R147,148		*	RD14AB2E332JTS RD14AB2E102JTS RS14GB3A100JKW RS14GB3A8R2JKW RS14DB3D151JTE	FL-PROOF RD 3.3K J 1/4W FL-PROOF RD 1.0K J 1/4W FL-PROOF RS 10 J 1W FL-PROOF RS 8.2 J 1W FL-PROOF RS 150 J 2W		
R167 R167 R168 R173 R179			RS14DB3A471JTE RS14DB3A821JTE RS14DB3A330JTE RD14AB2E680JTS RD14AB2E470JTS	FL-PROOF RS 470 J 1W FL-PROOF RS 820 J 1W FL-PROOF RS 33 J 1W FL-PROOF RD 68 J 1/4W FL-PROOF RD 47 J 1/4W		2 3
R181 R181 R191,192 R193,194 R193,194		*	RD14AB2E332JTS RD14AB2E392JTS RS14GB3D331JKW RD14AB2E392JTS RD14AB2E472JTS	FL-PROOF RD 3.3K J 1/4W FL-PROOF RD 3.9K J 1/4W FL-PROOF RS 330 J 2W FL-PROOF RD 3.9K J 1/4W FL-PROOF RD 4.7K J 1/4W		2 3 3
R197 R211,212 VR1 ,2 VR11 VR12		*	RD14AB2E472JTS RS14DB3A821JTE R12-1616-05 R29-5068-05 R05-5037-05	FL-PROOF RD 4.7K J 1/4W FL-PROOF RS 820 J 1W TRIMMING POT.(1K) IDLEING POTENTIOMETER(100K) VOLUME POTENTIOMETER(200K) BALANCE		3
K1 K2 S1 S2		*	S76-0005-05 S76-0015-05 S68-0010-05 S40-6035-05	MAGNETIC RELAY MAGNETIC RELAY PUSH SWITCH SPEAKERS A/B PUSH SWITCH MM/MC		3
D1 -30 D1 -30 D31 ,32 D31 ,32 D51			HSS104 1SS133 HSS104A 1SS131 D5SBA20F03	DIODE DIODE DIODE DIODE DIODE		
D51 D52 -55 D56 ,57 D56 ,57 D58 ,59			RBV-602LFA SS688B HSS104 1SS133 HSS104A	DIODE DIODE DIODE DIODE DIODE		
D58 ,59 D60 D60 D61 ,62 D61 ,62			1SS131 HZ55.1S(B2) RD5.1JS(B2) HZS7.5S(B) RD7.5JS(B)	DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
D63 -69 D63 -69 D70 -74 D70 -74 D75			HSS104 1SS133 HZS7.5S(B) RD7.5JS(B) HZS20S(B)	DIODE DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
D75 D76 D76 D77 -84 D77 -84			RD20JS(B) HZ55.1S(B2) RD5.1JS(B2) HSS104 1SS133	ZENER DIODE ZENER DIODE ZENER DIODE DIODE DIODE		
D85 D85 IC1 IC1 IC2			HZS7.5S(B) RD7.5JS(B) NJM4565D NJM4580D-D LC7821N	ZENER DIODE ZENER DIODE IC(OP AMP X2) IC(OP AMP X2) IC(FUNCTION CONTROL SWITCH)		3 2

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PARTS LIST

KA-2050R/3050R

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No. 6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
IC3 IC4 IC5 IC6 IC6			NJM4580D-D TC9163N TA8409S TA7805S UPC7805AHF	IC(OP AMP X2) IC(BILATERAL SWITCH X16) IC(MOTOR CONTROL) IC(VOLTAGE REGULATOR/ +5V) IC(VOLTAGE REGULATOR/ +5V)		
IC7 Q1 -4 Q1 -4 Q5 -10 Q11 -14			NJM4565D-D 2SK170(BL) 2SK170(V) 2SC2878(B) 2SC1845(F,E)	IC(OP AMP X2) FET FET TRANSISTOR TRANSISTOR		3 3
Q15 -18 Q19 ,20 Q21 ,22 Q23 ,24 Q23 ,24			2SA992(F,E) 2SC1845(F,E) 2SC4137(F,W) 2SC2458(Y,GR) 2SC3311A(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q51 Q51 Q52 ,53 Q52 ,53 Q54 ,55			2SA1048(Y,GR) 2SA1309A(Q,R) 2SC2458(Y,GR) 2SC3311A(Q,R) 2SC2003(L,K)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q56 Q56 Q57 ,58 Q57 ,58 Q59			DTA124ES UN4112 DTC124ES UN4212 DTA124ES	DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q59 Q60 Q61 Q62 ,63			UN4112 2SD863(E,F) 2SB764(E,F) 2SD863(E,F)	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
CONTROL UNIT (X11-32XX-XX)						
D1 D14 -22			B30-1291-05 B30-1291-05	LED(LN21CPSLX(V)-(TA4)) LED(LN21CPSLX(V)-(TA4))		
C1 ,2 C3 -8 C9 -12 C13 -16 C17 -20		*	CE04KW1HR33M CF92FV1H101K C90-1969-05 C90-1970-05 CF92FV1H223J	ELECTRO 0.33UF 50WV MF 100PF K ELECTRO 0.33UF 50WV ELECTRO 10UF 35WV MF 0.022UF J		
C21 ,22 C23 ,24 C51 C52 C53		*	CE04KW1H010M CF92FV1H561J CE04KW1E470M CF92FV1H103J CE04KW1E470M	ELECTRO 1.0UF 50WV MF 560PF J ELECTRO 47UF 25WV MF 0.010UF J ELECTRO 47UF 25WV		
C54 C55 ,56 C57 C58 C59			CF92FV1H103J CE04KW1HR33M C90-3244-05 CK45FF1H103Z C90-3256-05	MF 0.010UF J ELECTRO 0.33UF 50WV ELECTRO 10UF 35WV CERAMIC 0.010UF Z ELECTRO 4.7UF 50WV		
C60 C61 C62 C63 C64			C90-3253-05 C90-3244-05 CE04KW1H010M CK45FF1H103Z CE04KW1A101M	ELECTRO 1UF 50WV ELECTRO 10UF 35WV ELECTRO 1.0UF 50WV CERAMIC 0.010UF Z ELECTRO 100UF 10WV		
C65 C66 ,67			C90-1827-05 C91-1439-05	BACKUP 0.047F 5.5WV FILM 0.01UF 250VAC		

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3 : KA-3050R
2 : KA-2050R

* New Parts

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No. 7

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
△ J1 △ J2 △ J3 -5		*	E03-0131-05 E03-0111-05 E03-0109-05	AC OUTLET AC OUTLET AC OUTLET	ELM P T	
△ F1 △ F1 △ F1 △ F1 ,2 △ F1 ,2 △ F3			F04-2025-05 F05-1623-05 F05-4028-05 F06-1022-05 F05-1623-05 F06-1022-05 F05-2525-05	FUSE (UL) (250V 2A) FUSE (SEMKO) (250V T1.6A) FUSE (UL) (125V 4A) FUSE (SEMKO) (250V T1A) FUSE (SEMKO) (250V T1.6A) FUSE (SEMKO) (250V T1A) FUSE (SEMKO) (250V T2.5A)	P 2 ELTX 3 P 3 ELTX 2 M 3 M 2 EL	
CN1 -4 CN1 ,2 CN5 ,6			J13-0075-05 J13-0075-05 J13-0075-05	FUSE CLIP FUSE CLIP FUSE CLIP	M ELTXP EL	
L1 ,2 X1			L40-1021-14 L78-0209-05	SMALL FIXED INDUCTOR(1.0MH,K) RESONATOR 4.194MHZ		
R89 VR1 ,2			RD14AB2E680JTS R06-3061-05	FL-PROOF RD 68 J 1/4W POTENTIOMETER BASS,TRESLE		
K1 S1 -5 S1 ,2 S4 ,5 △ S7			S76-0009-05 S40-1064-05 S40-1064-05 S40-1064-05 S31-2322-05	MAGNETIC RELAY PUSH SWITCH KEY BOARD PUSH SWITCH POWER,TAPE2/DAT PUSH SWITCH SOURCE DIR,LOUDNES SLIDE SWITCH VOLTAGE SELECTOR	M	3 2 2
S6		*	T99-0526-05	ROTARY ENCODER INPUT SELECTOR		
D3 -8 D3 -8 D9 D9 D10 -13			HSS104 1SS133 HZS5-1S(B2) RDS-1JS(B2) HSS104	DIODE DIODE ZENER DIODE ZENER DIODE DIODE		
D10 -13 D23 D23 IC1 IC2		*	1SS133 HSS104 1SS133 UPD75004CU-145 NJM4565D-D	DIODE DIODE DIODE IC(MICROPROCESSOR) IC(OP AMP X2)		
IC3 Q1 Q1 Q2			PST529C 2SC2458(Y,GR) 2SC3311A(Q,R) 2SC2003(L,K)	IC(SYSTEM RESET) TRANSISTOR TRANSISTOR TRANSISTOR		
A1			W02-1046-05	ELECTRIC CIRCUIT MODULE		

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3 : KA-3050R
2 : KA-2050R

KA-2050R/3050R

SPECIFICATIONS (For U.K. and Europe)

KA-3050R

Continuous rated power output	
(DIN) 1 kHz, at 8 Ω	55 W + 55 W
at 4 Ω	70 W + 70 W
(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.	
at 8 Ω	55 W + 55 W
at 4 Ω	70 W + 70 W
Dynamic power	
	65 W (8 Ω)
	70 W (6 Ω)
	85 W (4 Ω)
	100 W (2 Ω)
Damping factor	40 (50 Hz)
Total harmonic distortion	
	0.05%
	(20 Hz ~ 20,000 Hz, 45 W, 8 Ω)
	0.02% (1 kHz, 45 W, 8 Ω)
Intermodulation distortion	
	0.05% (45 W, 8 Ω)
	(70 Hz : 7 kHz = 4:1)
Frequency response	
CD	5 Hz ~ 90 kHz, +0 dB, -3 dB
PHONO 'RIAA' response	
	20 Hz ~ 20 kHz,
	+0.3 dB, -0.3 dB
Maximum input level	
PHONO (MM)	130 mV, 0.5% T.H.D. at 1 kHz
PHONO (MC)	10 mV, 0.5% T.H.D. at 1 kHz
Signal to noise ratio	
PHONO (MM)	87 dB (IHF '66)
	82 dB (IHF '78)
PHONO (MC)	67 dB (IHF '66)
	75 dB (IHF '78)
CD/TUNER/AUX/TAPE	101 dB (IHF '66)
	85 dB (IHF '78)
PHONO (MM)	60 dB (DIN, 50 mW output)
CD/TUNER/AUX/TAPE	60 dB (DIN, 50 mW output)
Input sensitivity/impedance	
PHONO (MM)	2.5 mV/47 k Ω
PHONO (MC)	0.2 mV/100 Ω
CD/TUNER/AUX/TAPE	200 mV/47 k Ω
Tone control	
BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)
Loudness control	
VOLUME at -30 dB level	+6 dB (100 Hz),
	+3 dB (10 kHz)
Output level/impedance	
TAPE REC	200 mV/1 k Ω
General	
Power consumption	
AC outlets	
SWITCHED	3; (Total 200 W max.)
Dimensions	
	W: 440 mm (17-5/16")
	H: 136 mm (5-3/8")
	D: 350 mm (13-3/4")
Weight (net)	
	6.9 kg (15.2 lb)

KA-2050R

Continuous rated power output	
(DIN) 1 kHz, at 8 Ω	35 W + 35 W
at 4 Ω	45 W + 45 W
(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.	
at 8 Ω	35 W + 35 W
at 4 Ω	40 W + 40 W
Dynamic power	
	45 W (8 Ω)
	50 W (6 Ω)
	60 W (4 Ω)
	70 W (2 Ω)
Damping factor	40 (50 Hz)
Total harmonic distortion	
	0.05%
	(20 Hz ~ 20,000 Hz, 30 W, 8 Ω)
	0.02% (1 kHz, 30 W, 8 Ω)
Intermodulation distortion	
	0.05% (30 W, 8 Ω)
	(70 Hz : 7 kHz = 4:1)
Frequency response	
CD	5 Hz ~ 90 kHz, +0 dB, -3 dB
PHONO 'RIAA' response	
	20 Hz ~ 20 kHz,
	+0.3 dB, -0.3 dB
Maximum input level	
PHONO (MM)	130 mV, 0.5% T.H.D. at 1 kHz
Signal to noise ratio	
PHONO (MM)	77 dB (IHF '66)
	80 dB (IHF '78)
CD/TUNER/AUX/TAPE	101 dB (IHF '66)
	85 dB (IHF '78)
PHONO (MM)	58 dB (DIN, 50 mW output)
CD/TUNER/AUX/TAPE	60 dB (DIN, 50 mW output)
Input sensitivity/impedance	
PHONO (MM)	2.5 mV/47 k Ω
CD/TUNER/AUX/TAPE	200 mV/47 k Ω
Tone control	
BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)
Loudness control	
VOLUME at -30 dB level	+6 dB (100 Hz),
	+3 dB (10 kHz)
Output level/impedance	
TAPE REC	200 mV/1 k Ω
General	
Power consumption	
AC outlets	
SWITCHED	3; (Total 200 W max.)
Dimensions	
	W: 440 mm (17-5/16")
	H: 136 mm (5-3/8")
	D: 350 mm (13-3/4")
Weight (net)	
	6.0 kg (13.2 lb)

KA-2050R/3050R

SPECIFICATIONS (For other countries)

KA-3050R

Continuous rated power output

(IHF '66) From 20 Hz to 20,000 Hz 0.05% T.H.D.

at 8 Ω 45 W + 45 W

(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.

at 8 Ω 55 W + 55 W

at 4 Ω 70 W + 70 W

Dynamic power 65 W (8 Ω)
70 W (6 Ω)
85 W (4 Ω)
100 W (2 Ω)

Damping factor 40 (50 Hz)

Total harmonic distortion 0.05%
(20 Hz ~ 20,000 Hz, 45 W, 8 Ω)
0.02% (1 kHz, 45 W, 8 Ω)

Intermodulation distortion 0.05% (45 W, 8 Ω)
(70 Hz : 7 kHz = 4:1)

Frequency response

CD 5 Hz ~ 90 kHz, +0 dB, -3 dB

PHONO 'RIAA' response 20 Hz ~ 20 kHz,
+0.3 dB, -0.3 dB

Maximum input level

PHONO (MM) 130 mV, 0.5% T.H.D. at 1 kHz

PHONO (MC) 10 mV, 0.5% T.H.D. at 1 kHz

Signal to noise ratio

PHONO (MM) 87 dB (IHF '66)

82 dB (IHF '78)

PHONO (MC) 67 dB (IHF '66)

75 dB (IHF '78)

CD/TUNER/AUX/TAPE 101 dB (IHF '66)

85 dB (IHF '78)

Input sensitivity/impedance

PHONO (MM) 2.5 mV/47 k Ω

PHONO (MC) 0.2 mV/100 Ω

CD/TUNER/AUX/TAPE 200 mV/47 k Ω

Tone control

BASS ± 10 dB (at 100 Hz)

TREBLE ± 10 dB (at 10 kHz)

Loudness control

VOLUME at -30 dB level +6 dB (100 Hz),
+3 dB (10 kHz)

Output level/impedance

TAPE REC 200 mV/1 k Ω

General

Power consumption 160 W

AC outlets

SWITCHED 3; (Total 200 W max.)

For Australia 2; (Total 200 W max.)

Dimensions W: 440 mm (17-5/16")

H: 136 mm (5-3/8")

D: 350 mm (13-3/4")

Weight (net) 6.9 kg (15.2 lb)

Kenwood follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement.
Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an.
Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the general market (M) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KA-2050R

Continuous rated power output

(IHF '66) From 20 Hz to 20,000 Hz 0.05% T.H.D.

at 8 Ω 30 W + 30 W

(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.

at 8 Ω 35 W + 35 W

at 4 Ω 40 W + 40 W

Dynamic power 45 W (8 Ω)
50 W (6 Ω)
60 W (4 Ω)
70 W (2 Ω)

Damping factor 40 (50 Hz)

Total harmonic distortion 0.05%
(20 Hz ~ 20,000 Hz, 30 W, 8 Ω)
0.02% (1 kHz, 30 W, 8 Ω)

Intermodulation distortion 0.05% (30 W, 8 Ω)
(70 Hz : 7 kHz = 4:1)

Frequency response

CD 5 Hz ~ 90 kHz, +0 dB, -3 dB

PHONO 'RIAA' response 20 Hz ~ 20 kHz,
+0.3 dB, -0.3 dB

Maximum input level

PHONO (MM) 130 mV, 0.5% T.H.D. at 1 kHz

Signal to noise ratio

PHONO (MM) 77 dB (IHF '66)

80 dB (IHF '78)

CD/TUNER/AUX/TAPE 101 dB (IHF '66)

85 dB (IHF '78)

Input sensitivity/impedance

PHONO (MM) 2.5 mV/47 k Ω

CD/TUNER/AUX/TAPE 200 mV/47 k Ω

Tone control

BASS ± 10 dB (at 100 Hz)

TREBLE ± 10 dB (at 10 kHz)

Loudness control

VOLUME at -30 dB level +6 dB (100 Hz),
+3 dB (10 kHz)

Output level/impedance

TAPE REC 200 mV/1 k Ω

General

Power consumption 120 W

AC outlets

SWITCHED 3; (Total 200 W max.)

For Australia 2; (Total 200 W max.)

Dimensions W: 440 mm (17-5/16")

H: 136 mm (5-3/8")

D: 350 mm (13-3/4")

Weight (net) 6.0 kg (13.2 lb)

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